

WHAT IS CLAIMED IS:

1. A network management system for managing networks, comprising:
 - 5 a subnetwork manager for dividing device subnetwork of a connecting device which belongs to plural networks to be managed, into divided subnetworks corresponding to the plural networks for management when collecting and managing subnetwork information out of device information
 - 10 as device subnetworks in the plural networks connected to each other; and
 - a user interface for controlling the display of the device subnetworks and divided subnetworks.
- 15 2. The network management system according to claim 1, wherein said subnetwork manager sets identifiers so as to recognize the correspondence among the device subnetwork and the divided subnetworks.
- 20 3. The network management system according to claim 1, wherein said subnetwork manager registers connection termination points for the corresponding divided subnetwork, while registering trail termination points for all the divided subnetworks after giving each of the trail
- 25 termination points an identifier so as to recognize which network is using the trail termination point.

4. The network management system according to claim 1, wherein said subnetwork manager creates virtual link ends and link to connect the divided subnetworks.

5 5. The network management system according to claim 1, wherein, in order to cancel the division of the divided subnetworks in response to an external command, said subnetwork manager registers the connection termination points of the divided subnetworks for the device
10 subnetwork, registers the trail termination points for the device subnetwork, avoiding overlaps, and deletes the link and link ends connecting the divided subnetworks.

6. The network management system according to claim 1,
15 wherein said subnetwork manager sets identifiers so as to recognize the correspondence among the device subnetwork connection and divided subnetwork connections, the device subnetwork connection describing the connectivity in the device subnetwork, the divided subnetwork connections
20 describing the connectivity in the divided subnetworks.

7. The network management system according to claim 1, wherein, when divided subnetwork connections are created, said subnetwork manager finds actually-used termination
25 points from virtual termination points, replaces the found virtual termination points with real termination points, and maps the subnetwork connection of which the both ends

are the real termination points, to the device subnetwork.

8. The network management system according to claim 1, wherein, in order to delete divided subnetwork connections, said subnetwork manager gives each of the divided subnetwork connections a deletion flag, and performs the deletion processing when all the divided subnetwork connections have the deletion flags.

9. The network management system according to claim 1, wherein, when creating the divided subnetworks or when creating divided subnetwork connections, said subnetwork manager creates virtual connection termination points and link connections.

10. The network management system according to claim 1, wherein, when trouble occurs on the networks, said subnetwork manager detects a link connection corresponding to a line in trouble from link connections created when the divided subnetworks were created, and said user interface displays a warning for the detected link connection.

11. A network system for managing networks, comprising:
network devices composing the networks;
management systems for managing device information of said network devices; and

a network management system comprising a subnetwork manager for dividing the device subnetwork of a connecting device which belongs to plural networks to be managed, into divided subnetworks corresponding to the plural networks for management when collecting and managing subnetwork information from device information as device subnetworks in the plural networks connected to each other, and a user interface for controlling the display of the device subnetworks and divided subnetworks.

12. The network system according to claim 11, wherein said subnetwork manager sets identifiers so as to recognize the correspondence among the device subnetwork and the divided subnetworks.

13. The network system according to claim 11, wherein said subnetwork manager registers connection termination points for the corresponding divided subnetworks, while registering trail termination points for all the divided subnetworks after giving each of the trail termination points an identifier so as to recognize which network is using the trail termination point.

14. The network system according to claim 11, wherein said subnetwork manager creates virtual link ends and link to connect the divided subnetworks.

15. The network system according to claim 11, wherein, in order to cancel the division of the divided subnetworks in response to an external command, said subnetwork manager registers the connection termination points of the divided subnetworks for the device subnetwork, registers the trail termination points for the device subnetwork, avoiding overlaps, and deletes the link and the link ends connecting the divided subnetworks.
- 10 16. The network system according to claim 11, wherein said subnetwork manager sets identifiers so as to recognize the correspondence among the device subnetwork connection and divided subnetwork connections, the device subnetwork connection describing the connectivity in the device subnetwork, the divided subnetwork connections describing the connectivity in the divided subnetworks.
- 15 17. The network system according to claim 11, wherein, when divided subnetwork connections are created, said subnetwork manager finds actually-used termination points from virtual termination points, replaces the found virtual termination points to real termination points, and maps the subnetwork connection of which the both ends are the real termination points, to the device subnetwork.
- 20 18. The network system according to claim 11, wherein, in order to delete divided subnetwork connections, said
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subnetwork manager gives each of the divided subnetwork connections a deletion flag, and performs the deletion processing when all the divided subnetwork connections have the deletion flags.

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19. The network system according to claim 11, wherein, when creating the divided subnetworks or when creating divided subnetwork connections, said subnetwork manager creates virtual connection termination points and link
10 connections.

20. The network system according to claim 11, wherein, when trouble occurs on the networks, said subnetwork manager detects a link connection corresponding to a line
15 in trouble from the link connections created when the divided subnetworks were created, and said user interface displays a warning for the detected link connection.

21. A network management method for managing networks
20 comprising the steps of:

dividing the device subnetwork of a connecting device which belongs to plural networks, into divided subnetworks corresponding to the plural networks when receiving and managing the subnetworks of devices as
25 device subnetworks in the plural networks connected to each other;

registering identifiers so as to recognize the

correspondence between the device subnetworks before and after division;

registering connection termination points for the corresponding divided subnetworks;

5 registering trail termination points with identifiers for all the divided subnetworks so as to recognize which network is using the points;

creating virtual link ends and a virtual link between the link ends to connect the divided subnetworks;

10 and

registering and managing the divided subnetworks.